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CHAPTER 12

WHITHER THE “WHIZ KIDS” WENT

Asian American Students’ Transition to College

Julia Dmitrieva, Chuansheng Chen, and Ellen Greenberger

Asian American youths are often portrayed as “model minorities.” Indeed, Asian American students tend to have higher school grades, greater high school completion rates, better performance on standardized tests (e.g., SAT), a greater proportion of youths going to college, and higher college graduation rates (Caplan, Choy, & Whitmore, 1992; Hirschman & Wong, 1986; Hsia, 1988; Kao, 1995; Knapp et al., 2007; Steinberg, Dornbusch, & Brown, 1992; Sue & Okazaki, 1990; Thernstrom & Thernstrom, 2003). Although this is true in terms of group averages, such stereotyping has many potential, negative consequences. First, it creates an oversimplified picture and sets unrealistically-high expectations and achievement-related pressure for all Asian American students, possibly contributing to poor mental health outcomes among those who have difficulty living up to the “whiz kids” stereotype (Tang, 2007). Second, the achievement-gap stereotype cre-
ates an impression that Asian American youths do not need any additional educational programs, and thus may lead to unfair distribution of public resources (e.g., lack of publicly-funded educational programs that fit the needs of Asian American youths). Finally, such stereotyping is typically generalized beyond the original empirical evidence. Most relevant to this chapter is the fact that our knowledge of ethnic differences in mean levels of academic achievement is predominantly based on K–12 data. Few studies (Tseng, 2004; Ying et al., 2001) have specifically compared Asian American college students with their European American peers in academic achievement, although a number of studies (e.g., Phinney, Dennis, & Osorio, 2006) explored topics that are relevant to Asian American students’ academic experiences in college (e.g., adjustment to college and academic motivation). The present chapter explores a previously neglected issue—what happens to Asian American students’ grades post high school. In order to accomplish this, we present results of three studies that examined Asian American academic achievement in college and tested alternative models that may explain ethnic differences in college academic achievement.

STUDIES OF ASIAN AMERICAN ACADEMIC ACHIEVEMENT IN COLLEGE

Although a number of studies have examined ethnic differences in academic motivation and other predictors of academic success, few have focused on Asian American college students’ grades. To our knowledge, only two studies have provided (not necessarily as a focal point of the studies) information relevant to a discussion of academic achievement of Asian Americans. Among those with some in-depth discussion is a study by Ying et al. (2001), which explored academic achievement in a sample of students enrolled at University of California at Berkeley. Their Asian American sample (n = 291) included Chinese (60%), Korean (14%), South Asian (7%), and Others (19%, of various other Southeast Asian ethnic backgrounds). These researchers found that Asian American students had significantly lower self-reported GPA than their European American counterparts.

Ying and colleagues proposed several possible explanations for this reversal in ethnic differences. First, Asian Americans are known to score higher on measures of self-efﬁcacy. It is, therefore, possible that European American youths overestimated their academic success, whereas Asian American students either did not overestimate their success or overestimated it to a lesser degree. Second, Asian American students tend to be disproportionately enrolled in natural science classes, where grading criteria are more strict and students tend to receive lower grades. It is possible that Asian American students’ lower grades reﬂect a decline in grades that is common for all natural science majors.

In another study, Tseng (2004) examined ethnic differences in academic achievement of 3,500 undergraduate students of the New York University. The Asian American group in this study was more broadly comprising Asian Americans and Paciﬁc Islanders. She found similar ethnic differences in grades, using ofﬁcial GPA records. Therefore, this study challenges the hypothesis that the reversal of the achievement gap is due to ethnic differences in reporting bias.

An Alternative Explanation for the Reversal of the Achievement Gap

Previous research showed that Asian American youths have later expectations for autonomy than European American youth (Feldman & Rosenthal, 1991). Their “struggle” for autonomy appears to continue into the college years, evidenced by their higher level of conﬂicts with their parents, as compared to European American college youths (Greenberger & Chen, 1996). Based on this idea of “delayed autonomy” for Asian Americans, we propose that the reversal of the achievement gap can be attributed to a chain of events that lead to a discrepancy in ease of transition to college for Asian American and European American youths. The origins of this ethnic difference in the impact of transition to college, we propose, lie in the ethnic differences in parenting. Because Asian American parents tend to use greater control and allow less autonomy (Olsen et al., 2002; Quoss & Zhao, 1995) during the pre-college years, the transition to college should exert more demands (e.g., demands for independent decision-making and responsibility) on Asian American students, who appear to transition into independence during their college years, than for European American students, who began their transition to independence at an earlier age.

Ethnic differences in parenting. In general, parenting styles are deﬁned by the amount of warmth and control exhibited by parents. Authoritative parents (i.e., parents who are warm, appropriately demanding, and encourage autonomy) tend to have children who get higher grades, feel more competent in school and with their friends, and have fewer internalizing and externalizing problems (Baumrind, 1991; Lamborn et al., 1991; Steinberg et al., 1992). Parenting styles that are characterized by low warmth, such as authoritarian and neglectful styles, are especially harmful with regard to internalizing problems and low sense of competence, whereas parenting styles that are characterized by low control are particularly detrimental for academic achievement and externalizing problems.
These findings have been replicated across widely different ethnic and cultural groups, with two exceptions: Asian American and African American groups. For these two ethnic groups, authoritarian parenting (i.e., parenting that is low on warmth and autonomy-granting but high on control and demandinngness) is more prevalent than for other groups (Steinberg, 2000). However, this type of parenting also does not appear to be as detrimental for them as it is for other ethnic groups. While Asian American children of authoritative parents do better than their peers from neglectful or indulgent homes, children of authoritarian parents appear to be doing as well as children of authoritative parents (e.g., in terms of academic achievement and externalizing behavior) (Chao, 2001; Dornbusch et al., 1987; Leung, Lau, & Lam, 1998).

Several explanations have been proposed to account for this differential impact of authoritarian parenting. First, Rudy and Grusce (2001) proposed that authoritarian parenting is associated with other harmful behaviors for European American parents, but not for Asian American parents. Accordingly, it is these accompanying behaviors, and not the authoritarian parenting, that are associated with negative outcomes. Specifically, they proposed that for European American parents, authoritarian parenting is associated with rejection, internal attributions for misbehavior, and angry/coercive parenting, whereas the same characteristics do not accompany authoritarian parenting of Asian American parents. There is partial evidence supporting the rejection hypothesis but not the internal attributions and angry/coercive parenting hypothesis (Rudy & Grusce, 2001).

The second explanation comes from researchers who argue that the current conceptualization of parenting styles is not adequate at describing Asian parenting (Chao, 1994). Asian parenting is better described as training that is composed of organizational control (e.g., self-discipline, hard work, family honor, and obedience) and parental investment. Warmth is not always shown through overt affective expression, as it is for European American families. Instead, it is expressed through behavior that supports achievement (from ensuring adequate resources to regulating the schedule of social and educational activities) (Chao & Tseng, 2002). Although the training model has been difficult to demonstrate in empirical studies (McBride-Chang & Chang, 1998, Stewart et al., 1998, 1999), future research needs to further explore the “emic” (Segall, Lonner, & Berry, 1998), or culture-specific, approach to studying parenting in Asian and Asian American families.

Finally, Chao (1994) and Fung (1999) proposed that there is a positive perception of authoritarian parenting in Asian cultures that protects youths from its negative effects. That is, high control, combined with low autonomy-granting and low affective expression of warmth, may be seen as parental rejection in western cultures; however, in Asian cultures, it is seen as part of parental concern for the child’s academic success (Rohner & Petengill, 1985). This has also been confirmed in another study for moderate, but not high, levels of parental strictness and control (Chao, 2001).

The delayed autonomy model. One alternative explanation, the one we propose in this chapter, is that excessive control and low autonomy interfere with the development of mature judgment and self-reliance for both European and Asian American youths. There are, however, ethnic differences in the behavioral expression of delayed autonomy during the pre-college years. Although delayed autonomy is associated with delayed psychosocial maturity and lower academic achievement for European American high school students, their Asian American counterparts are temporarily protected by parents and peers from the potentially negative effects of delayed autonomy on academic achievement. Asian American parents are known to provide a greater amount of support for education-related activities, nudging their children toward educational activities and curbing opportunities to engage in distractions that are commonly associated with problem behaviors. In the peer context, Asian American youths are also protected since they tend to have more positive peer influence (Steinberg et al., 1992). Therefore, while European American youths begin to experience social-environmental maturity demands during their high school years, Asian American adolescents do not experience these demands until they transition to college. The effects of transition to college are especially dramatic if they are accompanied by moving away from parental home—in effect, moving away from the protective environment created by parents and childhood friends. In summary, transition to college and out of the parental home serves as a catalyst for the harmful effects of delayed autonomy and psychosocial maturity on academic achievement, exposing the disadvantage of not having had a chance to exercise autonomy from parents. Finally, the “delayed autonomy” model also predicts that once Asian American students attain the level of psychosocial maturity that is commensurate with their autonomy, their academic achievement will increase.

In this chapter we explore ethnic differences in changes in academic achievement during the transition to college and test the propositions of the delayed autonomy model. Specifically, we ask: (1) Can the reversal of achievement gap be replicated?; (2) Which factors contribute to it?; and (3) Does the reversed achievement gap close after a period of transition? To answer the second question, we test three competing hypotheses: whether the reversal of the ethnic gap in academic achievement can be attributed to (a) inequalities in grades at the time of matriculation, due to a strong preference among top Asian American students to choose top private universities, therefore, leaving only less capable students to attend public universities; (b) disproportionate enrollment of Asian American students in natural science majors, for which there are stricter grading criteria; or (c) the diff-
ferential impact of moving out of the parental home for Asian American students, due to a greater proportion of students with delayed autonomy and psychosocial maturity. To explore these questions, we analyzed data from three studies.

METHODS

Study 1—The Cross-Sectional GPA Study

In Study 1 we obtained official high school and current GPA records, as well as results of standardized testing (e.g., SATs and ACTs), for 785 Asian American and European American students enrolled at University of California at Irvine (UCI). Seventy percent \((n = 553)\) of participating youths were Asian Americans and \(30\% \ (n = 230)\) were European Americans (an ethnic composition that is typical of the UCI student body). Of Asian American students, \(37\%\) were Chinese/Chinese American, \(16\%\) were Vietnamese/Vietnamese American, \(15\%\) were Korean/Korean American, \(14\%\) were Filipino/Filipino American, \(7\%\) were Thai, \(6\%\) were South Asians (e.g., of Indian or Pakistani descent), and \(5\%\) were Japanese/Japanese American. Participating students were, on average, 20.77 years old \((SD = 3.28)\), with a slight majority of female \((54\%)\) participants. They were recruited by e-mail, as part of a larger study of student life at the University of California. Participants filled out an online survey that, among other items, included residential status (with parents or away from the parental home), college major, and student level (i.e., freshman, sophomore, etc.).

Study 2—The Cross-Sectional Psychosocial Maturity Study

Study 2 was also cross-sectional. It included 400 Asian American and European American students at the University of California at Irvine, who participated in a larger study of attitudes and academic achievement. Seventy-four percent \((n = 297)\) of participants were Asian Americans and \(26\% \ (n = 104)\) were European Americans. Of Asian American participants, \(29\%\) were Chinese/Chinese American, \(18\%\) were Korean/Korean American, \(17\%\) were Vietnamese/Vietnamese American, \(13\%\) were other Asian/mixed Asian, \(11\%\) were Filipino/Filipino American, \(9\%\) were South Asian, and \(5\%\) were Japanese/Japanese American. Participants were, on average, 20.52 years old \((SD = 2.60)\), and two thirds \((67\%)\) were female. Students filled out a survey as part of an extra credit assignment, which included self-reported college grades, class level (i.e., freshman, sophomore, etc.), and the work orientation and social commitment subscales of the Psychosocial Maturity Inventory (PSM Inventory, Greenberger & Bond, 1976; Greenberger et al., 1974). Each of these subscales consists of 10 items, such as "Hard work is never fun" (reverse coded) for work orientation, and "I would rather give an old TV set to someone I know, than to a home for orphans" (reverse coded) for social commitment.

Study 3—The Longitudinal Study of Transition from High School

Study 3 employed a longitudinal design. It included a sample of 452 Asian American and European American students who were part of a larger study investigating educational and career aspirations of youths, and followed participants from 12th grade through their sophomore year in college. Forty-eight percent \((n = 218)\) of participants were Asian Americans and \(52\% \ (n = 233)\) were European Americans. Of them, \(52\%\) were Filipino/Filipino American, \(23\%\) were Korean/Korean American, \(9\%\) were Vietnamese/Vietnamese American, \(7\%\) were Chinese/Chinese American, \(7\%\) were other Asian/mixed Asian, and \(2\%\) were Japanese/Japanese American. Participating students were, on average, 17.78 years old at baseline \((SD = .60)\), with nearly half female \((51\%)\) participants. At baseline, participants filled out a survey during a regular classroom period. Subsequent two yearly data collections were carried out with mailed questionnaires. The survey included self-reported grades, residential status (with parents or away from parental home), and the work orientation subscale of the Psychosocial Maturity Inventory (PSM Inventory, Greenberger & Bond, 1976).

These three studies allowed us to test different questions. Study 1 made it possible to examine cross-sectional differences in official grades for all four years in college, while also having high-school GPA data. This study also included students' residential status. Study 2 did not have high school GPA data but it had information of the work orientation subscale of the Psychosocial Maturity Inventory. Finally, Study 3 allowed us to observe longitudinal changes between the high school and two years of college grades; however, it did not cover all four years of college.

RESULTS

Does the Achievement Gap Reverse in College?

Study 1. Asian American students had significantly higher high school GPAs than did European Americans, \(t(778) = 2.02, p < .05\) (see Figure 12.1).
Figure 12.1 Study 1—Mean ethnic differences in official GPA scores by class level. Significance of the cross-ethnic differences is indicated with asterisks: *p < .05, **p < .01.

The pattern of ethnic differences was generally reversed during the college years, with European American students having significantly higher sophomore- and senior-year GPA than their Asian American counterparts; t(173) = 2.96, p < .01 for sophomores and t(244) = 2.04, p < .05 for seniors. Although the same trend-level pattern of ethnic difference held for freshman and junior years, it was not statistically significant. The pattern of differences remained after controlling for participants gender and parental educational attainment.

Study 2. Asian American juniors reported significantly lower college grades than their European American counterparts, t(101) = 2.97, p < .01 (see Figure 12.2). Although Asian American students consistently reported lower grades across all college years, the differences were not significant for the freshman, sophomore, and senior years. The pattern of differences remained after controlling for participants gender and parental educational attainment.

Study 3. Both ethnic groups experienced a decline in grades during their freshman year, F(2,216) = 9.01, p < .001 (see Figure 12.3). Asian American students experienced a significantly greater decline in grades than their European American counterparts, F(2,216) = 3.82, p < .05. There were no ethnic differences in grade changes during the sophomore year. The pattern of differences remained after controlling for participants gender and parental educational attainment.
**Why Does the Achievement Gap Reverse?**

*Selection Factor*

Study 1: Asian American youths had significantly higher official high school grades, and there were no ethnic differences in SAT scores (see Figure 12.4(a)), indicating that there is no selection bias as proposed earlier, and that Asian American youths had equivalent, if not greater, achievement during their high school years. Study 3: There were no ethnic differences in mean self-reported high school grades (see Figure 12.4(b)).

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**Differential Enrollment in Natural Science Majors**

Study 1: For Asian American students, the type of major was not associated with either high school or college GPA (see Figure 12.5(a)). Enrollment in natural sciences had an effect for European American youths, such that natural science students had significantly higher high school GPAs, but their freshman-year GPA was significantly lower than that of students in other majors (see Figure 12.5(b)). This indicates that differential enrollment in natural science majors was not responsible for the observed reversal of the ethnic achievement gap.

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*Figure 12.4* Mean differences in high school achievement. (a) Study 1. (b) Study 2. Significance of the cross-ethnic differences is indicated with an asterisk: * $p < .01$.

*Figure 12.5* Study 1—Mean grades for students enrolled in Natural Science majors versus other majors. Significance of the cross-major differences is indicated with asterisks: ** $p < .01$, *** $p < .001$. 
Differential Impact of Moving Out of the Parental Household

Study 1: Results for a two-way ANOVA showed that both Asian American and European American students who moved away from home had higher high school GPA, \( F(1,778) = 23.53, p < .001 \) and that Asian American students, on average, had higher high school GPA, \( F(1,778) = 4.45, p < .05 \). There was no interaction for these two effects. Asian American students who moved away from home experienced a significant decline in grades between high school and freshmen years (paired samples \( t[47] = 4.85, p < .001 \)), and between high school and sophomore years (paired samples \( t[52] = 5.63, p < .001 \)) (see Figure 12.6(a)). The decline was not significant by junior year (paired samples \( t[51] = .82, \text{n.s.} \)). For European American students, staying at home was associated with a freshman-year increase in grades (paired samples \( t[33] = 6.83, p < .001 \)), but moving away from home was not associated with significant changes in GPA (paired samples \( t[26] = 1.55, \text{n.s.} \)) (see Figure 12.6(b)). Study 2 is not included in these analyses because it did not include the residential status information. Study 3: Based on results of repeated measures ANOVA, there was a significant ethnicity \( \times \) residential status \( \times \) time interaction (\( F[2,213] = 3.58, p < .05 \)). Asian American students who moved away from home experienced a significant decline in grades during their freshman year (\( F[2,108] = 20.65, p < .001 \)) (Figure 12.7(a)); whereas Asian Americans youths who did not leave the parental home did not experience a decline (\( F[2,106] = .41, \text{n.s.} \)). European American students who moved away from home had a slight

![Asian Americans GPA](image)

![European Americans GPA](image)

**Figure 12.6** Study 1—Mean grades by residential status.

![Asian American self-reported grades](image)

![European American self-reported grades](image)

**Figure 12.7** Study 3—Longitudinal changes in self-reported grades from high school through sophomore years by residential status.
freshman-year decline in grades, followed by the increase previously noted during the sophomore year ($F(2,110) = 4.46, p < .05$) (see Figure 12.7(b)). European American youths who stayed in the parental home did not experience significant changes in grades ($F(2,104) = .40, n.s.$).

**Delayed Autonomy and Psychosocial Maturity as the Origin of Ethnic Differences in Grades**

Study 1 was not included in these analyses because it did not include an assessment of psychosocial maturity. Study 2: Asian American students scored significantly lower on the work orientation subscale of the Psychosocial Maturity Inventory ($t(359) = 5.57, p < .001$). Furthermore, work orientation was tested in a regression model predicting academic achievement (Table 12.1). When entered at the second step into the model regressing academic achievement on ethnicity, work orientation partially explained ethnic differences in grades, such that the standardized regression coefficient for ethnicity dropped from $\beta = .21, p < .001$ to $\beta = .14, p < .05$ after the inclusion of the work orientation variable. Therefore, Asian Americans' lower work orientation scores partially explained lower junior-year achievement for this ethnic group.

Study 3: In line with findings from Study 2, Asian American students scored significantly lower on work orientation ($t(416) = 3.79, p < .001$). There was a significant interaction between residential status and work orientation for Asian American students, but not for European American students (Table 12.2). For Asian Americans, moving away from home was associated with a freshman-year decline in grades only for youths who had low work orientation ($B = -2.29, p < .01$), but not for youths who had high work orientation ($B = .42, n.s.$) (Figure 12.8).

### TABLE 12.1 Regression Model of Academic Achievement on Ethnicity and Work Orientation for Junior-Level Students in Study 2

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<th>$\Delta R^2$</th>
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<td>Ethnicity (AA vs. EA)</td>
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<tr>
<td>Work orientation</td>
<td>.26***</td>
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<tr>
<td>R$^2$</td>
<td>.11</td>
</tr>
<tr>
<td>$\Delta R^2$</td>
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### TABLE 12.2 Freshman-Year Change in Grades for Asian American and European American Students Regressed on Work Orientation, Residential Status, and their Interaction

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<tr>
<td>Out of parental home</td>
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<td>R$^2$</td>
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### SUMMARY

Results of these three studies suggest that, although Asian American youths have higher academic achievement in high school than their European American counterparts, there is, at least, a temporary reversal of ethnic differences in college grades. The transition to college and moving away from the protective parental and peer contexts of the home exerts greater maturity demands for Asian American youths. The reversal of the ethnic gap cannot be explained by selection factors or by differential enrollment in natural science courses. Results indicate that this negative effect of transition is greater for Asian American youths who move away from their paren-
of the needs of Asian American college students, providing additional diagnostic and counseling services.

REFERENCES


**AUTHOR NOTE**

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